

equivalent to Claims.

While the invention has been described in detail and with reference to specific examples thereof, it will be apparent to one skilled in the art that various 5 changes and modifications can be made therein without departing from the spirit and scope thereof.

The present application is based on Japanese Patent Application No. 2004-024257 filed on January 30, 10 2004, and the contents are incorporated herein by reference.

Industrial Applicability

As described in the above, according to the 15 invention, regardless of the frequency to be applied, a soft magnetic material exhibiting excellent magnetic characteristics and a dust core produced from the soft magnetic material can be provided.

Claims

1. A soft magnetic material comprising metal magnetic particles containing iron and oxygen, wherein
5 the ratio of the above oxygen contained in the metal magnetic particles is more than 0 and is less than 0.05% by mass.

2. The soft magnetic material according to claim
10 1, wherein the coercive force of the above metal magnetic particles is 2.4×10^2 A/m or less.

3. The soft magnetic material according to claim
15 1 or 2, wherein the average particle size of the above metal magnetic particles is from 100 μm and to 300 μm .

4. The soft magnetic material according to claim
1 or 2, wherein the particle size distribution of the above metal magnetic particles is substantially present
20 only in the range of more than 38 μm .

5. The soft magnetic material according to
claim 1 or 2, which comprises a plurality of composite magnetic particles comprising the above metal magnetic
25 particles and insulating coated films surrounding the

surface of the above metal magnetic particles.

6. A dust core produced using the soft magnetic material according to claim 1 or 2.

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7. The dust core according to claim 6, wherein coercive force is 2.0×10^2 A/m or less.